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File: USPT

Feb 16, 1999

US-PAT-NO: 5871464

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TITLE: Perfusion apparatus and methods for pharmaceutical delivery

DATE-ISSUED: February 16, 1999

## INVENTOR-INFORMATION:

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US-CL-CURRENT: 604/506; 604/132

## CLAIMS:

We claim:

1. A method for the effective delivery of a viral vector gene therapy pharmaceutical to a target tissue comprising contacting a target tissue with a viral vector gene therapy pharmaceutical in a recirculating, oxygenated perfusate solution, where said solution is held at about 37.degree. C., such that there is effective delivery of the viral vector gene therapy pharmaceutical, and wherein said target tissue is located within a kidney.
2. The method of claim 1 wherein the target tissue is in vivo and in situ.
3. The method of claim 1 wherein the target tissue is ex vivo.

10/004161 called re: Restriction <sup>Tues.</sup> 9/9/03  
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II 12-16